

## CLAIMS:

1. Active matrix display device (6) comprising a display panel (2) with a matrix of display pixels (3), and row and column electrodes (11,12) coupled to said display pixels (3), each of said display pixels (3) having a current mirror circuit adapted to receive a programming current ( $I_{\text{prog}}$ ) via said column electrodes (11) and to reproduce said programming current ( $I_{\text{prog}}$ ) for driving an emissive element (14), wherein said display device (6) is further arranged to execute a calibration phase wherein a calibration voltage ( $V_{\text{cal}}$ ) is applied at each column electrode (11) before said programming current ( $I_{\text{prog}}$ ) is applied and said calibration voltage is substantially maintained at said column electrode (11) for each of said display pixels (3) until said programming current ( $I_{\text{prog}}$ ) is applied.
2. Active matrix display device (6) according to claim 1, wherein said display device (6) is arranged for simultaneous execution of said calibration phase for more than one row (4) of said display pixels (3).
3. Active matrix display device (6) according to claim 1, wherein each of said column electrodes (11) is coupled to at least one switch ( $S_{\text{cal}}$ ) to apply said calibration voltage ( $V_{\text{cal}}$ ).
4. Active matrix display device (6) according to claim 3, wherein said switch ( $S_{\text{cal}}$ ) connects said column electrodes (11) to ground.
5. Active matrix display device (6) according to claim 1, wherein each of said display pixels (3) further comprises calibration circuitry having a capacitor ( $C_{\text{cal}}$ ) and a transistor ( $T_{\text{cal}}$ ) whose current carrying electrodes are connected between said column electrode (11) and a first plate of said capacitor ( $C_{\text{cal}}$ ), and is arranged to charge said capacitor ( $C_{\text{cal}}$ ) prior to said calibration phase and to discharge during said calibration phase via said transistor ( $T_{\text{cal}}$ ) such that the gate of said transistor ( $T_{\text{cal}}$ ) carries a voltage substantially equal to the sum of said calibration voltage ( $V_{\text{cal}}$ ) and a threshold voltage ( $V_t$ ) of said transistor ( $T_{\text{cal}}$ ).

6. Active matrix display device (6) according to claim 5, wherein said calibration circuitry comprises one or more switches (S5, S6) to control said charging and discharging of said capacitor ( $C_{cal}$ ) and wherein said display device (6) comprises a display controller (7) for  
5 controlling said switches (S5,S6).

7. Active matrix display device (6) according to claim 5, wherein a second plate of said capacitor ( $C_{cal}$ ) is connected either to ground or to a substantially constant voltage supply.  
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8. Active matrix display device (6) according to claim 1, wherein said display device (6) comprises common calibration circuitry to execute said calibration phase for several display pixels (3) along said column electrode (11).

9. A product (1) comprising the active matrix display device (6) as claimed in claim 1; and signal processing circuitry (SP) for supplying a signal to the active matrix display device (6).  
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10. Method for calibrating an active matrix display device (6) comprising a display panel (2) with a matrix of display pixels (3), and row and column electrodes (11,12) coupled to said display pixels (3), each of said display pixels (3) comprising a current mirror circuit adapted to receive a programming current ( $I_{prog}$ ) via said column electrodes (11) and to reproduce said programming current ( $I_{prog}$ ) for driving an emissive element (14), comprising the steps of:  
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25 - applying a calibration voltage ( $V_{cal}$ ) to each column electrode (11) before said programming current ( $I_{prog}$ ) is applied;  
substantially maintaining said calibration voltage ( $V_{cal}$ ) at said column electrode (11) until said programming current ( $I_{prog}$ ) is applied.

30 11. Method according to claim 10, wherein said calibration voltage ( $V_{cal}$ ) is applied for more than one row (4) of said display panel (2) at once.